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CONTENTS

The Teaching of Health at Wisconsin High School 49
H. H. Ryan, Ph.D.

School Health Service in Illinois 54
Robert C. Cook, M.D.

Organizing for Better School Health Programs 57
George T. Palmer, Dr. P. H.

Editorials 63

Abstracts 65

Notes 70

Reviews 72

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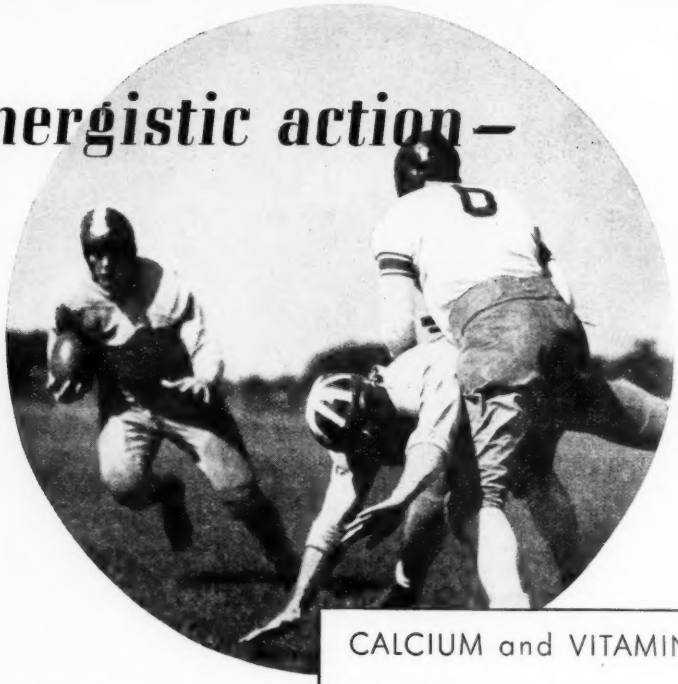

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VOL. VII MARCH, 1937 No. 3

THE TEACHING OF HEALTH AT WISCONSIN HIGH SCHOOL

H. H. RYAN, Ph.D.

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There is a rapidly growing feeling among educators in the secondary school field that high school education now faces the necessity of revising much of its procedure in terms of some new principle. Most human undertakings are characterized by intermittent progress based upon successive new departures. In the field of transportation, for example, we found that we could get only so far, so long as we depended upon horseflesh and galley slaves and masts full of sails. About a hundred years ago the principle of the steam engine was introduced, and then transportation rushed ahead by leaps and bounds. After a half century of that, we found that we had gotten about as far as we could with steam; and so we turned to the internal combustion engine. In these later years, when we find ourselves balked in our attempts at greater speed or safety or comfort, we turn to some new principle as a way out—multiple cylinders, knee action, stream-lining, or what not. It is probable that we have reached the point in secondary education where future significant improvement is contingent upon the introduction of a new principle.

The contrast between the helplessness of the infant on the one hand, and the variety of competence which the adult must exhibit on the other, emphasizes the fact that a great part of the education of any boy or girl has as its purpose that of enabling him or her to adjust to this complex and ever-changing environment which we call the world. Every year of the world's history sees a longer and more varied list of things which the individual must be able to do properly, just to get along in this life.

The genuineness and critical nature of this problem is unquestioned. It is strange that we are so slow to realize how much we are in need of a direct attack on that problem. Throughout the history of the American high school we have stubbornly stuck to the hope that a roundabout approach would accomplish the purpose. The high school curriculum has been founded upon the principle of intellectual exercise. We have assumed that the best thing that we can do for a youngster in anticipation of the problems which he will sooner or later face, is to provide him with a set of standardized general experiences intended to increase the horsepower of his central nervous system. Whatever be the value of such a procedure

for some educational purposes, it is high time that we tried the direct method of attack on problems of adjustment.

For example, no one will deny that one of the crying needs of this country now is intelligent and aggressive citizenship. The efforts of the high schools to produce such citizenship have been distressingly oblique, at least so far as the classroom is concerned. Our plan has been to start the pupil into ancient history and bring him down through the long story of human history to the final chapter of the most recent textbook. Our hope has been that this diet of military legends, together with some knowledge of the hopes and intentions of our forefathers as they wrote them into our constitution, would bring about good citizenship. From the evidence now at hand it seems that this is too much to expect of such indirect procedure.

When Wisconsin High School was given the opportunity to organize its experimental curriculum under the auspices of the Progressive Education Association, it was determined that at least a part of the curriculum should be of the direct or functional type. One of the constants in this experimental curriculum is called "Health" and its purpose is, as the name implies, that of increasing the pupil's competence as the custodian of his present and future health. This is a three-year course running through tenth, eleventh, and twelfth grades, meeting two or three hours per week. In each of these grades about twenty pupils are enrolled. Following is a topical outline of the course.

I. Adjustment to the School Program
   1. Mental activities
   2. Physical activities
   3. Rest and sleep

This unit is concluded by the budgeting of each child's time and energy, taking into consideration the child's physical condition as revealed by a medical examination. Study-room and class-teachers, as well as parents, are asked to co-operate in enabling and in urging the child to live up to his budget. A preliminary meeting with the parents enables them to co-operate intelligently in this procedure.

II. Correct Posture and Its Maintenance
   1. Natural bodily adaptations for locomotion and general mobility
   2. Natural curves of body and their maintenance
   3. Effects of good posture on respiration, circulation, digestion and excretion, nervous efficiency, etc.
   4. Analysis of each child's posture—correction of abnormal curvatures of spine and feet, correct shoes
   5. First aid practices in case of injuries to bones, muscles, tendons, ligaments

III. How Life Goes On
   1. Nature of reproduction—in one-celled organisms, colonial forms, higher forms, humans

2. Effects on the human body of the development of the sex-organs, the meaning of adolescence

IV. Warding Off Infections—Sanitation

Skin infections and irritations

1. Natural defense adaptations of the skin
2. Maintenance of a healthful skin by
   a. Avoidance of chapping and chafing
   b. Avoidance of irritations
   c. Cleanliness of skin and nails
3. Environmental cleanliness
4. Prevention and care of surface irritations and infections

V. Nutrition

1. Food requirements and methods of meeting them
2. Maintaining efficient digestion of foods and proper elimination of body wastes
3. Intelligent care of foods
4. Intelligent purchasing of foods

VI. Temperature Regulation

1. Nature of heat (theories)
2. Production of heat
3. Methods of heat transfer
4. Temperature regulation of the body
5. Heat disturbances of the body; prevention and first aid measures
6. Physical education applications

VII. Organic Infections

1. Organic infections—natural defense adaptations of the body
2. Care of the body
   a. Maintenance of natural defense mechanisms and bodily resistance
   b. Non-exposure to disease
   c. Artificial methods of building resistance
3. Prevention and care of specific diseases
4. Historical study of the development of medicine as a science
5. Professional services
6. Evaluating published material on health subjects

VIII. Mental Hygiene

1. Effects of physical health on the nervous system
2. Natural functioning of the nervous system
3. Mental reactions—inborn automatic, voluntary, and acquired automatic
4. Mental habits
5. Emotions
6. Adjustment of one's freedom and independence to the rights and well-being of others

7. Choosing vocations intelligently
8. Choosing avocations intelligently
9. Harmful effects of intemperate uses of stimulants and narcotics on nervous and other systems
10. How busy men and women maintain mental efficiency
11. Self analysis and re-checking of mental habits to be established—follow up work

IX. Character of the Next Generation
1. Nature of variations in organisms
2. Cell division—nature of—results
3. Improvement of plant and animal life
4. Improvement of human families and race
   a. Euthenically—Improvement of environment (somatic variations)
   b. Eugenically—Improvement by heredity (germinal variations)
5. Wholesome relationships between young men and women.

X. Public Hygiene: Major Understandings
1. Public hygiene is mainly useful in preventing acute infectious diseases, while individual hygiene is, for the most part, concerned with preventing the chronic diseases
2. It is believed that it is within man's power to rid himself of all infectious disease
3. The general public, constituting the consumers, have it in their power to accomplish many of the necessary reforms needed in public hygiene
4. Individual health is impossible to maintain in a large community without the organized help of each member in the community
5. There is in every community a positive relationship between disease, dependency, and delinquency
6. Many branches of science have and are contributing to the advance made in public hygiene
7. Public regulation of food and drugs affords protection for the consumer
8. Semi-public hygiene (institutions and industrial establishments) is as essential to community health as is public hygiene
9. The number of activities carried on by a municipal health department in excess of those required by law serves as one reliable index of its efficiency
10. Vital statistics indicate that control of infectious disease has been one of the greatest contributing factors in increasing the average life span. This is mainly attributable to progress in public hygiene and education of the public in proper health practices

11. Attitudes concerning the causes of diseases (punishment for sin, demoniac possessions, and other taboos) are still interfering with their intelligent control (insanity, syphilis, tuberculosis.

It is evident from the above outline that no effort is made, in constructing the course, to stick to any one of the organized fields of knowledge. Any item, in whatever field of knowledge, which offers promise as an aid to the solution of any health problem is considered appropriate to the course. Only such items are included in the course; nothing is included simply because it is known or because it has always been included in science courses.

In looking over the outline the reader will surmise, and rightly so, that the teacher in charge needs help from experts and specialists of all kinds. In the study of the eye, the teacher of physics teaches the necessary facts with regard to the reflection and refracton of light, the control of intensity, and so on. An expert from the local Gas and Electric Company brings a load of complicated machinery including a stereopticon, a light meter, and a variety of light-control devices, and gives a demonstration of the effects of certain lighting accessories. Questions of posture are handled by the physical education teachers. Sex instruction is at the hands of two physicians, a man and a woman. Matters of diet are taken up by the teacher of home economics. In this way, in its three years of instruction in health, the class will be taught by as many as twenty different persons.

In the construction of the course, as well as in the teaching of it, the instructors have profited greatly by the characteristic graciousness and unselfishness of the medical profession. At many points, advice has been given by medical men and women with the greatest of freedom and generosity. Their attitude has illustrated very well indeed the interest of the profession in prevention as well as in cure.

Unfortunately, it is not possible to speak as positively about the results of the course as about its content. We are still struggling with the problem of evaluation. We know that as a group these pupils are absent only about half as often as the other pupils in the school. We know that as a direct result of this attention to their own physical welfare, certain imperfections have received radical treatment and certain others have been eliminated by slow but careful procedure. We know that the pupils are health conscious, and that they are extraordinary well informed about health matters. As yet we do not know that they are going to be better off physically than they would otherwise have been. We hope that before the experiment has come to an end we shall be in a position to judge the effectiveness of this direct attack upon a critical and pervasive human problem.

SCHOOL HEALTH SERVICE IN ILLINOIS*

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The policy of the Illinois State Department of Public Health with respect to health service in the schools is based on the philosophy that self-help is the best help. Assistance with the development of local programs that depend upon local resources is, therefore, the aim of all activities of the Department in this field. Essential to this policy and to this plan is an appreciation of the value of preventive medicine and of the methods necessary in its practice on the part of school boards, school officials, and school teachers.

The Department of Public Health visualized that the two principal avenues through which the children in all communities might ultimately be reached are the teacher training colleges and the public and private schools.

As for the teacher training colleges, we have continually given encouragement to the further broadening and development of their curriculum pertaining to health. Their curriculum, only a few years ago, was limited almost wholly to a biologic and physiologic basis of facts, whereas now they include in addition to the foregoing, practice and experience in healthful living according to the recognized principles based upon experience and research. These colleges now attempt to imbue their students with ideals of the true value of health, and to equip them with methods and material for the guidance of their pupils when they go into their own classrooms.

The biggest factor of influence in our Illinois State Teachers' Colleges is that they now have for presidents men who previously in other school situations were health conscious and active in planning for their schools a better health program. Within the last few years four of our five State Teachers' Colleges have added physicians to their staff to direct the school health work—physicians recommended because of qualifications and preparation for that specific job. Each school also has one or more nurses; and one has included a psychiatric clinic, conducted at six weeks intervals. The result is the young graduate teacher moves into her new field of activity carrying foremost the idea of good health for all her pupils.

To the public and private schools we have through the years brought personal assistance to practically every school, large or small. This has been effected through our district health officers, district nurses, dentists, and pediatricians doing special health work. Our field workers have given

*Read at a Joint Session of the Health Officers and Public Health Nursing Sections of the American Public Health Association and of the American Association of School Physicians, New Orleans, October 22, 1936.

special demonstrations in medical and dental examinations, taking advantage of each examination to make it a teaching lesson. Our nurses have contacted school officials to help them analyze their outstanding needs, and we have helped with organization for various types of health programs, especially immunization programs.

One of the outstanding helps we have given to the schools is the service of a physician and nurse to make a general health appraisal of the school, based on three separate considerations. In the first section, attention is given to the school building, its construction, heating, lighting, decoration, safety, and all other features that may contribute to good hygiene, sanitation and safety, and happiness.

In the second section, consideration is given to the health service provided by the school for the pupil. Is a doctor's examination given once in two years, and a dentist's examination yearly? Is a nursing service provided? Are ninety per cent of lower grade children immunized and vaccinated? Is a pre-school summer round-up examination done?

In the third section, consideration is given to play programs, health instruction, health practice, home and community co-operation.

The outline for this appraisal is set up in a little booklet of 35 pages†. It is not comprehensive as to details, but does headline enough objectives to furnish a school suggestion upon which to build a satisfactory minimum program. It should be stated that on each section of the appraisal booklet a score is given. On the first section 400 points is considered norm, on the second section 300 points, and on the third section 300 points, making a total of 1000 points.

After the appraisal, each school visited is supplied with a duplicate copy of the appraisal booklet, with the score entered for each phase of the program, also a narrative report covering the same.

During the period of seven years, 358 schools, quite well distributed over the state, have had this service, and it is one of the outstanding activities of the Department that incites the schools to do something about a health program. It is also a service that allies the schools to the Health Department, and keeps them requesting further help or material.

Practically all of the schools visited have voluntarily reported back to us on one or more occasions what they have done to meet the recommendations of the appraisal. They have reported improvements of the physical plant in almost all instances; extensive immunization programs in many places; and development of a definite health program in many others.

From one superintendent: "I think the improvement in the Lincoln School is one of the best things we have ever done."

From another: "I am not yet ready to report in full on our parent educational campaign as it is a little too early to know all of the results. I am

†Illinois School Health Appraisal—Sponsored by Illinois Congress of Parents and Teachers and Division of Child Hygiene, State Department of Public Health, 1933.

convinced that if we can get enough parents to have these health services rendered, by making arrangements with the doctors themselves in their offices, it will be much better than to have it done in 'wholesale' fashion at the school building. We have already gone much too far in relieving people of responsibility and taking away their self-reliance, in my opinion. The education method will be slower, but much more effective in the long run if we are good enough educators to put it across."

From yet another superintendent: "I shall never forget the services you rendered to our schools, and as a result of your help health objectives are found as a part of every course of study in our school system. We have health objectives in our art courses, English courses, music courses, science courses, physical training course, etc. The English teacher makes her contribution through health plays, health talks, health themes, health poems, essays, and limericks. The art teacher makes health posters, safety posters, etc. The music teacher provides her children with health songs, rhythmatic dancing, etc. Science and nature study teachers avail themselves of every opportunity to make health applications of their subject-matter. The physical education teacher probably has the greatest opportunity of any department of the school of developing health habits and teaching health truths. Much of our supplementary reading, in all grades, is selected with the idea of making the child 'health-minded.'

"I am enclosing a course of study used by the physical education teacher. You will see by the objectives in this course that the plan of carrying out these objectives is largely in the field of health education.

"I am more than glad to work with you in developing a health program that will be more definite than what we have had in the past. I would appreciate very much your criticism of my plan of health instruction. Do you feel that we could accomplish more by having health taught as a special subject rather than as a unit part of our subjects?"

Schools are giving more and more attention to mental hygiene and social hygiene programs. The home city of our State University, through special teachers, teaches a graded course of study in social hygiene and life processes to all the grades, fitting the subject-matter appropriate to the various grades—the story of plant and lower animal propagation to the lower grades, and gradually advancing the subject-matter for the higher grades until sex and sociology as related to man are considered.

Sufficient information is now available to any interested community to point the way to practical and productive self-help in health lines.

It remains for the community itself to develop a health consciousness and an intelligent interest in its own health problems. It will be effective in just the proportion that it utilizes its own resources in the work. The final success of all efforts rests upon the participation of the community benefitted and upon that alone.

ORGANIZING FOR BETTER SCHOOL HEALTH PROGRAMS*

GEORGE T. PALMER, DR. P. H.

Yesterday, I quoted certain paragraphs from a report of the White House Conference on Child Health. These were offered as guiding principles in school health work. The educational motive was emphasized as the foundation of all school health activity. Whatever is done should prove an experience from which child and parents may learn something useful. It is the pyramiding of learning situations that better prepare the child on leaving school to look after himself in the long years that follow.

Our topic today is how to organize for better school health programs. We have made very material progress in this field in the last hundred years since Horace Mann in Boston was hammering away at the need for health instruction in the school. And, we are still hammering for something better. National health organizations such as the American Child Health Association have rendered a distinct service by keeping the iron hot, by constantly urging and striving for a better service. Surveys and studies, and the exchange of experiences in meetings such as this one, bring into the forefront the weak spots in our program. They help us to approach nearer to our ideals, and when we approach the goal closely, we boost the ideals a notch higher.

What is weak in our programs today? In a letter to Dr. Rogers of the U. S. Bureau of Education, Dr. A. J. McLaughlin of the U. S. Public Health Service states his belief that teacher training in the health of the school child is a weak spot. He states that this subject is "neglected or inadequately handled in nearly all of our teachers' colleges". "Teachers", he continues, "and especially teachers in grades I to VIII, must be equipped not only to teach simple personal hygiene, but also to recognize deviations from the normal in children under their charge." This is a highly interesting point of view coming from a physician—an assistant surgeon general of the U. S. Public Health Service.

Passing over the criticism of teacher training institutions which we shall let stand as it is, we may take up the suggestion that the teacher be taught to recognize deviations from the normal. This opens up the entire field of the health examination. As at present organized, most schools follow the custom of having the school physician routinely examine all children in some one or more grades. In some instances, an attempt is made to examine all grades annually. More often, routine examinations are confined to three or four grades, such as the 1st, 4th, 6th and 8th. The examination starts with the physician, usually without the parent present. The physician proceeds without any preliminary history of the child. He goes over the child somewhat rapidly, and registers his impressions with an appro-

*Presented before the Health Education Institute, University of Michigan, May 16th, 1936.

priate check mark on a card to indicate what he judges to be a defect. There is little or no interpretive advice given the child. The existence of defects is transmitted to the parents, either by a note or by a visit of the school nurse. The nurse, with little information other than the bare notation of some defect, tries to arouse the parent to the point of consulting the family physician, or, if this is out of the question, then a physician in a free clinic. The nurse keeps after the family with repeated visits until some action is taken.

This procedure has been subjected to a great deal of criticism. It results in piling up a great mass of reported defects about which little is done. And yet the process is repeated year after year with the reports growing in volume. The report of the New York State Health Commission, 1932, comments on this fact as follows: "The physical examinations which are made each year of every school child represent useless expenditures unless steps are taken to correct the defects found. Hundreds of thousands of dollars are spent annually in the State for examination and re-examination of children which discover and re-discover the presence of defects about which nothing is done either by parents or by the school."

The educational motive is largely lacking under such conditions. The child does not learn something useful. The experience in this kind of an examination does not reflect credit on the examiner or on the school. It is rather an experience in the futility of an examination. The school should not care to foster such a routine.

There are a number of things in this procedure that could be bettered. The teacher has little or no part in this procedure. She ought to be brought actively into the picture. The nurse works under a handicap, since the information in her possession is all too meagre. She ought to have more details about the child and about the defect. The doctor is doing something that he would not do in his private practice. With his own patients, he would secure some background or history of the child. Before taking the child to a doctor, the parent wants more impressive arguments than the available data make possible. You can't blame them for thinking twice before running up a doctor's bill.

Consider what the teacher has to give in this procedure: she is closer to the child than either physician or nurse; she sees the child every day; she is in a position to observe changes in the child from time to time; she can note peculiarities in behavior or habits; she knows about the absences and illnesses. In short, she has in her possession a history of the case. This is just the information that the examining physician should have. Dr. Rogers states that the "test of observation of the daily use of the eyes and the symptoms that may arise from eye defects are of much more importance than the use of the Snellen card." With such information, the physician is in a much better position to judge of the significance of what he finds in his examination. One of the reasons that teachers do not exhibit more

interest in the health of the child is that they have no ready listener to whom to report what they have observed in the classroom and no one to help interpret the facts to them. Teachers must be made to feel that what they have to say regarding the habits and physical traits of their pupils is gladly received and used.

The absence of the mother from the examination is a grave error. I have known physicians and nurses and principals who do not want mothers present. Their presence slows up the work. They are considered a nuisance since they are apt to ask a lot of questions. The interested and earnest physician or the school administrator welcomes the interest of the parent as a happy augury for success.

The mother ought to be there to ask questions. She ought to be there to see what the doctor does, and to hear what he has to say. Here is the real educational opportunity. This is much more illuminating and convincing than to have just a bare abstract of this information relayed to the mother through the nurse. With the teachers' information, and with what the mother has to offer, the doctor has the preliminary history that he would normally seek in his private office.

Can the nurse do a better job visiting the home for follow-up if she knows the background of the case? Of course she can. If she has personal facts about the child—how he appears in his class, what the physician actually said about him, which the mother recalls—her visit is more interesting and more impressive.

School physicians have been expected to do the impossible. Faced with a long line-up of children, they have hurried through, and done the best they could under the circumstances. I do not think school physicians have been sufficiently rebellious. They should have insisted on a decent opportunity to apply their professional training intelligently. They should have had a history to work from, time to do their work carefully, and a chance to talk directly to a parent. This will give the doctor more assurance that his efforts will be used to some purpose.

The necessity of the doctor, nurse, principal, and teacher working together and exchanging information is one of the points stressed in the study of the New York City schools which was published by the American Child Health Association under the title "Physical Defects—The Pathway to Correction."

In fact, so important is this rapport between these four that the whole procedure of the examination might well be altered. One way to draw these four people into a closer working relationship is for the doctor to confine himself, first and foremost, to cases referred by the teacher. This would immediately enlist the interest of teachers.* They would feel the responsibility of bringing children to medical attention. They would enjoy

*The religious creed of many teachers blinds them to obvious deviations from the physical normal. Ed.

the opportunity to have their questions about children answered. They would become interested in the doctor's recommendations. They would be stimulated to see these recommendations followed. They would lend their influence to get results. All this fits in with the educational motive of having the children and parents learn something constructive from the examination effort.

The criticisms against this changed procedure are that it is a departure from the principle of the health examination for every child regardless of whether he possessed any obvious ailments. For a number of years, the annual health examination for all has been advocated with the object of detecting handicaps in their incipiency before symptoms develop. But we must consider the actualities. Our health facilities in the schools are inadequate to provide an individual medical adviser for all children in school. This is not even advisable. It is beyond the educational function of the school. The school examination is primarily educational and diagnostic. Its purpose should be to provide the school with information to guide intelligent action in dealing properly with the child. Further, its purpose is to acquaint the family with facts on how better to care for the health of the child; to demonstrate to the family how to utilize medical advice for the benefit of the child. The school physician however might well tell the mother that his examination is necessarily limited; that negative findings do not mean a clean bill of health; that real medical advisory service means repeated consultations which of course the school physician cannot be expected to provide.

It is well to detect harmful conditions in their incipiency, but the school physician cannot be expected to anticipate conditions before they give any sign of their existence. He must have signs and symptoms on which to base his judgments. Many of these signs and symptoms are observable by teachers if they are adequately instructed. Dr. Rogers and Dr. McLaughlin have pointed this out in the reference made earlier.

If the health examination is initiated by the teacher, referring cases probably through the principal in order to enlist the principal's interest, then the school health record should be altered in form to allow for this. There should be space for several distinct entries.

First—The teacher's observations.

Second—The doctor's examination in medical terms.

Third—The doctor's recommendations in plain English. This includes his recommendations to the school, and to the parent.

Fourth—The parents' statement as to what will be done and when.

Fifth—The private or clinic physician's notation of what has been done, or the nurse's comments of what has or has not been done.

This type of form would yield a more complete and useful record than many of the forms now used, which are given over very largely to check-mark spaces for the doctor.

To carry out this program will require instruction of the teachers in the simple signs and actions of children which warrant reference to the physician. The method of giving this instruction should be worked out with the educational administrator. If the doctor is to give the instruction, he must guard against descriptions in medical terms. He must not bewilder or confuse the teacher or weigh her down with too much detail. He is not to make a diagnostician of her. It is not important to inform the teachers as to what certain signs or symptoms portend. Teachers are not to be expected to identify or name ailments. They are merely expected to be on the lookout to recognize unusual behavior or characteristics in the child, and, when such conditions are observed, to refer the child to the doctor.

Another opportunity to better the school health program rests in the conduct of the doctors' examinations. This is illustrated in the New York study previously mentioned. In studying the recommendations for tonsillectomy, a thousand fifth grade children were questioned and examined. Sixty per cent of this group had already lost their tonsils. The remainder, who still possessed their tonsils and who were scattered over a dozen schools, were each examined by a school physician, one in each school. Forty-five per cent of this group were recommended for tonsillectomy. Those not recommended were examined again by a second and distinct group of physicians. They recommended forty-six per cent of children for tonsillectomy. Again, the remainder or those who had so far escaped a tonsil recommendation were examined by a third and district corps of physicians. This time, forty-four per cent of children were recommended for tonsillectomy. In other words, it appeared that each lot of examiners recommended for tonsillectomy about forty-five per cent of the group who came before them, even though this group was composed wholly of cases previously passed as normal by one or two other examiners. With four successive examinations, only 65 out of a thousand 11-year-old children would escape recommendation for tonsil removal.

This result indicates the extreme lack of agreement among physicians on this subject, and the strong tendency to lean toward tonsillectomy. The correction of this situation is a matter to be worked out by the doctors themselves. However, the possession of a previous history of the cases, such as could come from the teacher and from the parent, would undoubtedly aid in righting this astounding experience revealed in the New York study.

The necessity for care before labelling a child as defective is also illustrated by a case recently brought to light. A school physician reported a bad heart in a young child entering school. This was recorded on the child's card. Some years later, in moving to another school, the physical education teacher saw this notation and insisted on a restricted program of ac-

tivity for the child. The private physician had repeatedly reported no indication whatever of a cardiac deficiency, but this had not removed the original record of defect. The physical education teacher made the child feel that he should be unusually careful. The result was the development of an inferiority complex that was becoming a serious matter. Eventually the child was given a clean bill of health by the cardiologist in the special heart clinic. His former record was corrected, restrictions were removed, and the child came out of his difficulties. This experience teaches the dangers of over-reporting physical handicaps. To do so may be just as bad as failing to report them when they do exist.

One further weakness in the school health program as reported in the New York study is the failure to harmonize the examination program with the follow-up program. There is no point in examining large numbers of children and reporting many defects unless there are available facilities for securing corrections. Where clinic facilities are grossly inadequate to care for children who must, by economic circumstances, use such facilities, then continued examinations lead to no useful end. They lead to frustration, an abortive and harmful educational experience, since it teaches that examinations do nothing for the situation. It would be far better for the school to appraise these facilities in advance and lend its efforts to having such facilities increased, rather than to ignore this condition and blindly to continue the examination program. If facilities are restricted, certainly the most serious cases ought to receive first attention. This calls for discrimination in the severity of the cases, and these differences in severity should be clearly noted in the examination record.

In discussing this subject, I have not commented so far on the oft debated point as to whether the school medical and nursing service should be under the control of the health department or the board of education. In practice, we find this service under boards of education in at least two-thirds of the cities. I do not think that this matters. We find good and poor programs under each. If the service is under the health department, then close co-operation must be worked out with the educational authorities. This is entirely feasible.

After all, our concern is the health and well-being of the child. Existing facilities should be used to give the most effectual service. Efforts must not be wasted; they must not be trivial. We must be ready continually to change and adapt programs to the best judgment and experience of the times. Our evaluation of the relative importance of health practices changes with increasing and advancing knowledge. We must be ready to alter our routines and content of health instruction accordingly. We can be critical without being disruptive. This is a formula that I would propose for bettering school health programs.

EDITORIALS

"Do what you can, with what you have, right where you are."

* * * * *

"Some eulogize our system of popular education, as though worthy to be universally admired and imitated. Others pronounce it circumscribed in its action, and feeble even where it acts. Let us waste no time in composing this strife. If good, let us improve it, if bad, let us reform it."—*Horace Mann.*

* * * * *

The leading article in the *Journal of the American Medical Association* of February 6, 1937, on "The Problem of School Medical and Dental Service," by D. F. Smiley, M.D., should be read in toto by every member of the American Association of School Physicians, as well as by the medical profession at large, and by school administrators.

For a number of years, Dr. Smiley has been in charge of the student health service at Cornell University, and for a year was Acting Director of the Division of Health and Physical Education of the New York State Department of Education. He is also an active member of the American Association of School Physicians.

The acticle presents squarely some of the weaknesses and failures in present day school health service as seen in many communities. It also suggests two definite plans for correction of what most of us realize is an unfortunate condition.

While we may not agree wholly with Dr. Smiley's judgment of conditions nor favor in its entirety either of the methods suggested for improvement, the article is thought provoking and merits intensive study and consideration. Presenting, as it does, the proposal to put the school health service under the administration of the Health Department, it offers an escape from the threatening shadow of lay dominance in a medical and public health field.

* * * * *

In America, almost without exception, during the last seventy-five years, the great thinkers, leaders, organizers, and administrators in physical education have been physicians.

From Edward Hitchcock, M.D., first President of the American Physical Education Association, then known as the American Association for the Advancement of Physical Education, appointed in 1861 head of the newly created Department of Hygiene and Physical Education at Amherst College, down through a long line of able conscientious doctors of medicine, the record runs. In this group of physicians we find the names of Edward M. Hartwell, the first Director of Physical Training in the public schools of Boston; of Dio Lewis who devised the "free hand" gymnastics which

were for years the foundation of public school physical education, and who established, in 1861, the first attempt to train teachers of physical education for schools; of Dudley A. Sargent, for years the leader of physical education in America, planner and director of the Hemminway gymnasium at Harvard University, and organizer and guiding director of the Sargent Normal School of Physical Education; of Arnold, Nissen, Gulick, Leonard, Burdick, and of the still living William G. Anderson recently retired from Yale, who called and organized the meeting at which the American Association for the Advancement of Physical Education was formed; of James Huff McCurdy who did so much to make the International Young Men's Christian Association College one of the leading schools in America for the training of teachers of physical education; and of R. Taft McKenzie a world wide credit to physical education.

When we study the history and development of the really worthwhile unified school health programs in city public schools, we find an equally gratifying record. Practically without exception, these unified programs were conceived, built up, and for years administered by physicians, and today, those communities having cohesive programs have them under the direction of doctors of medicine.

In the fifty-two years of its existence, the American Physical Education Association has had twenty-one Presidents, of whom three were women. Of the twenty-one, thirteen were Doctors of Medicine. This, in spite of the fact that the percentage of the members of the American Physical Education Association who are physicians is relatively small. About fifteen years ago those interested primarily in physical education in colleges formed a separate organization holding separate meetings during the last week in December. This removed from active participation in the American Physical Education Association a large proportion of the physicians. Since that time the management of the American Physical Education Association has fallen into other hands.

Of its leaders, the *Journal of Health and Physical Education,* the official Journal of the American Physical Education Association says in an historical review in its January, 1932 issue, "Each of the presidents made a distinct and original contribution to Physical Education. Dr. Hitchcock was the father of college physical education and developed the program at Amherst College that was to serve as a model for all other departments for a long time. Dr. Sargent was well known for his work in the field at Harvard University and his system of exercises had many followers. Dr. Gulick was especially known for his work in the physical department of the Y.M.C.A. and in hygiene and playground movements, and in addition was the founder of the Camp Fire Girls in America. Dr. Arnold and Dr. Savage developed strong teacher training programs at the Normal schools that still bear their names. Dr. Meylan was especially interested in the

'Camp Movement.' Dr. R. Tait McKenzie as director of physical education at the University of Pennsylvania has played a prominent part in formulating the ideals and policies of the profession and as a sculptor has added distinction to physical education by the fame of his statues of 'sporting youth.' And all these leaders have been influential in the profession through their writings and speeches."

With this record of constructive planning, organization, administration, and leadership, it seems silly, as well as astonishing, for any group to try to maintain the thesis that physicians are not competent to organize and direct these combined programs, but that only an "educator" should be given this opportunity and responsibility.

* * * * *

ABSTRACTS

The Problem of Childhood Tuberculosis.—Medearis* suggests that the following be applied to routine pediatric practice: A wider use of the tuberculin test in diagnosis is advisable. Every child giving a history of home contact with tuberculosis should be so tested. Any child with inadequately explained fever or with a subnormal weight gain deserves a tuberculin test. A Mantoux test may well be made a routine procedure in every hospital admission of a pediatric patient. Every positive reactor should have a roentgenogram of the chest, and the interpretation of this plate should be made by a physician adequately trained in the roentgen diagnosis of tuberculosis. Every patient in whom a primary tuberculosis complex has been diagnosed merits an adequate medical follow up with proper hygienic and dietary supervision and examinations at intervals frequent enough to assure the detection of any developing adult type of disseminating lesion early enough to establish effective special therapy.

*The Problem of Childhood Tuberculosis, D. N. Medearis, Kansas Medical Society Journal, Kansas City, October, 1936, p. 397. *The Journal, A. M. A.*, December 12, 1936, p. 2004.

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Tuberculosis, a Significant Phase of Health Education. William Paul Brown, M.D., Albany, N. Y.—Throughout the nation we are awakening to the incompleteness of the education proffered in health conservation. With the revaluation of many other subjects, which results in the omission or condensation of material, we have a chance for better health education. All who function in such betterment will need keen judgment in the choice of the materials.

The medical study of pupils for tuberculosis is now being provided early in the school year; often in the first month. The tests are achieved usually for the pupils of the first year at college and often for the pupils of the first year at high school. Because of the staging of tests in October, there is added need to consider inclusion of health education covering tuberculosis as an activity of the early weeks of the school year.

Happily, the knowledge of tuberculosis has been developed by medical science to an excellent degree. The details of the information are rather clear cut, and are applicable for subsequent health instruction through contrast comparison with other diseases. This knowledge lends itself readily to being an initial topic.

Student activity can be developed as an important integral method of study, and tuberculosis presents many chances for special investigations by the pupils.

a. Inquiry at the health department concerning the incidence of the disease.
b. Inventory of the provision set up for treatment of tuberculosis by the community.
c. Study of the costliness of the disease in the family budget and in community finance.
d. Study of the frequency of tuberculosis as a cause of impoverishment of families.

Projects accomplished early in the school year provide experience in these techniques, of long value:

a. Influence of various occupations on the death rate for tuberculosis.
b. Analysis of the comparative danger, from the various diseases, affecting the 'teen age.
c. Development of a graph showing the tuberculosis death rates each year, since 1900.
d. Comparison of the cost of prevention of tuberculosis with the cost of treatment.

Essays can be worked up by students, such as:

a. Description of the steps appropriate in case a member of the family should exhibit slightly suspicious symptoms.
b. A news article concerning the community program for the year against tuberculosis.
c. Descriptive essay on five reasons why the student should be especially interested in tuberculosis of those in the 'teen ages.
d. Describe the prevention of tuberculosis by the use of our present knowledge.

The notebooks of the pupils would aim to concentrate the main points. Inclusive definitions of the disease, graphs covering the sickness rate and the death rates, reports covering visits to local health departments, and points disclosed in interviews with leading physicians could be standard major items.

The proofs are so tangible and demonstrable concerning the linkage of the tubercle bacilli with the disease tuberculosis that this material is outstanding in value. The facts in the epidemiology of tuberculosis then have a carry-over value in supporting less demonstrable epidemiology as

to other diseases. In the similiarities and differences, the tuberculosis presentation clarifies other knowledges such as the details of cancer, diphtheria, pneumonia, appendicitis, rheumatic fever.

While the study of tuberculosis covers only a fraction of the aspects of health conservation, yet it fits well into the effective teaching of many factors in maintenance of health.

* * * * *

So-called Recurrence of Scarlet Fever.—Thirty cases of recurrence of scarlet fever in hospitalized children during the last two and a half years are reported.* The cases occurred from the ninth to the fifty-sixth day after the first onset of scarlet fever, mostly between the twentieth and thirtieth days. In nineteen cases peeling took place twice. No deaths resulted, but the second cases were on the average more grave than the first and were followed by complications in 60 per cent as against from 18 to 20 per cent in the first cases, milder complications being included. In Gottlieb's opinion the most probable explanation of the recurrence is cross infection from other patients with streptococci of different type than that which caused the original attack of scarlet fever. This assumption seems to him supported by the finding of different types of streptococci in different scarlet fever patients (Smith, Griffith) and by the occasional establishment in children in hospital wards of streptococci of different type than that originally established, to which the disorder was presumably due.

*So-Called Recurrence of Scarlet Fever, E. Gottliev, Ugeskrift for Laeger, Copenhagen, 1936, p. 1054. *The Journal, A. M. A.*, January 9, 1937, p. 162.

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Scarlet Fever Immunization.* To the Editor.—There has been considerable dispute in Gary as to the value of scarlet fever immunization. Will you kindly inform me as to the latest consensus with regard to the value of these immunizing injections?—Joseph Goldstone, M.D., Gary, Ind.

Answer.—The answer rests to a considerable degree on one's interpretation of what constitutes scarlet fever. If a rash is essential for a diagnosis of scarlet fever, the Dick method for active immunization must be regarded as highly efficient.

Inoculations with Dick toxin do not prevent streptococcic infections. It is sometimes claimed that the scarlet fever toxin merely desensitizes an individual to the rash of scarlet fever but does not prevent the disease. Notwithstanding this criticism, inoculations with scarlet fever toxin have apparently greatly diminished the frequency of scarlet fever among employees in hospitals for contagious diseases.

Many physicians believe that the Dick method of active immunization

The Journal, A. M. A., December 12, 1936, p. 1988.

against scarlet fever is of unquestioned value and yet hesitate to recommend the procedure because of the fear of severe reactions.

Physical Education.—About a year ago the Physical Education Committee appointed by the British Medical Association rendered its report. Abstracts of that report follow:

"Not less than 40 per cent of the population between the ages of 14 and 40 need, but do not participate adequately, if at all, in physical recreation or training. The results are only too evident in the defective physique of large sections of the population." As to the relation between physical education and medicine, the report states: "Physical education has progressed from being a narrow specialty of the gymnasium and games field, in the hands of instructors with limited training and apprehension, toward a national service, which aims at securing greater health, fitness and happiness for the people as a whole, irrespective of age or sex. It should take its place among the great social services as a branch of public health." Organizers of physical education should be appointed by all local authorities.

Physical education in schools should include systematic gymnastic exercises, games and other activities, each playing its part in a balanced scheme of training. Gymnastic training should not be regarded as subsidiary to field games and athletic sports. Swimming should be taught as a regular part of physical education in all schools. Instruction in elementary physiology and personal hygiene as a branch of general science should be regarded as an essential part of physical education. These subjects should be taught in a practical way and should be related both to the gymnastic training and to the periodic medical examination. Local education authorities should provide suitable clothing and gymnastic shoes for children whose parents cannot do so.

Physicians have hitherto been concerned chiefly with the physical treatment of the abnormal rather than the normal, and with the individual rather than the community. They have devoted attention to the cure and prevention of disease rather than the perfecting of the race. Nevertheless physicians engaged in attending communities such as industrial organizations, schools and the defense services have long been pressing the need for extending physical education to the whole population. The physician, too long absorbed in the treatment of individuals, is more and more coming to realize that he has an important part to play in furthering communal well being. The committee considers that not only should there be regular medical examinations in schools but in all matters concerning physical development and health of the individual pupil there should be close cooperation between the head master, the school doctor, the parents and the teacher of gymnastics. This is especially desirable in the prevention

of strain, which girls are liable to suffer in mixed schools. Medical supervision should be available to ensure that unfit children do not participate in unsuitable or excessive exercises. Physicians should co-operate with teachers of gymnastics in investigating the physiologic requirements and effects of the various exercises with a view to the scientific arrangement of the syllabus of training. Postgraduate courses should be established to provide physicians with the special training which the medical supervision of physical education requires.—London Correspondent, *Journal A. M. A.*, June 13, 1936, p. 2079.

* * * * *

Increased Attention to Physical Education.*—The Board of Education, in fulfillment of the government's policy announced at the last general election, has sent a circular to the local education authorities dealing with the provision of suitable clothing and footwear for school children during games and other physical exercises. This circular is the last of four on physical education issued during the year by the board. The board is at present concentrating on the senior children between 11 and 14 or over. The new senior schools are well equipped for physical education, but improvement is needed in some of the older ones which have a playground but no playing field or gymnasium. The more modern type of school has these. In 1921 a school for 1,000 children was thought to be well off with a site of 1½ acres; a new school for the same number now has 16 acres.

A well known educationalist points out that every year thousands of graduates leave the universities, of whom 90 per cent would be better educated had their curriculum included physical education. He points out that where physical education is compulsory the students show educational as well as physical advantages compared with those for whom compulsion does not exist.

*From letter of London Correspondent, *The Journal A. M. A.*, December 12, 1936, p. 1978.

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Menstrual Cycles and Physical Exercises.—Skerlj* analyzed the menstrual records of young women attending a school for gymnastics. In some of the young women the period of observation covered twenty-one or twenty-two months, in others only half that time. Dysmenorrheas were comparatively frequent and in some of the cases their appearance indicated a connection with bathing and swimming in cold water. Amenorrheas seemed to be more frequent during the cold period, but apparently there was a connection with the skiing courses, whereas camping trips in the summer time seemed to have no such influence. Only 20 per cent

*Menstrual Cycles and Physical Exercises, Archiv for Gynäkologic, Berlin, October 23, 1936, p. 516. *The Journal, A. M. A.*, January 9, 1937, p. 160.

of the women showed no changes in their menstrual cycles, whereas the remaining 80 per cent showed temporary or "constant" changes. The author thinks that this high incidence proves a direct connection between the changes in the menstrual cycle and the intensive physical exercises. He advocates the prohibition of intensive training and of athletic contests and advises against all forms of heavy gymnastics during the menstrual period, emphasizing that the possibility that the menstrual changes produced by intensive physical exercises are only temporary and do not cause permanent damage should not change this attitude.

* * * * *

Conservation of Hearing.—It has been well stated that "Hearing is Health." The conservation of hearing is one of the major aims of the American Society for the Hard of Hearing. Through exhibits at state and national meetings, through papers given before various groups, through special literature distributed as widely as funds will permit, through radio broadcasts and newspaper articles, the Society is striving to make the public aware of the necessity of guarding children against diseases that cause deafness. In its program of conservation of hearing it advocates annual tests of the hearing of all school children (and children of pre-school age), re-testing of doubtful cases, adequate medical treatment, and lip reading instruction for all children in need of it. It urges control of communicable diseases, prevention of common colds, avoidance of fatigue, the keeping of the general health to maximum. It gives publicity to the causes of deafness, warns against the disastrous effect of suppurating ears; stresses the need of care in swimming and diving, especially for those whose ear drums are punctured. The Society believes that the old axiom "An ounce of prevention is worth a pound of cure" is never more applicable than when applied to diseases that cause deafness. Abstract read before Regional Conference of the American Association of School Physicians, Washington, D. C., Dec. 31, 1936.—*Betty C. Wright,* Executive Director, American Society for the Hard of Hearing.

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NOTES

At the Manufacturers and Bankers Club, Philadelphia, on February 9, 1937, a testimonial dinner was given to Walter S. Cornell, M.D., in celebration of his completing twenty-five years as Director of the Medical Inspection of Public Schools in that city, and in commemoration of the Silver Anniversary of the Department.

Dr. Cornell has been a leading pioneer in the field of school health service, is author of one of the outstanding textbooks on medical inspection in schools, prominent in civic and medical affairs of Philadelphia,

and one of the organizers of the American Association of School Physicians. Well done, and congratulations.

* * * * *

In the state of New York, an extended study is being made of educational procedures in the public schools. Officially this study is known as the "Regents Inquiry Into the Character and Cost of Education in New York State." The study will include the teaching of hygiene, physical education, and the school health services. By law, in every school district in the state except Rochester, Buffalo, and New York, the health services are financed and administered by the various Boards of Education.

The section of the study relating to the health and physical education field is headed by a sub-committee of three—C-E. A. Winslow, Dr. P. H. of the Yale School of Public Health, Chairman, Martha McDonald, M.D., of Chicago, a psychiatrist, and Charles C. Wilson, M.D., Director of Physical and Health Education in the public schools of Hartford, Connecticut, and President, 1935-1936, of the American Association of School Physicians. The field work in physical education is being done by Mr. Carl Schrader, recently State Director of Physical Education in Massachusetts. The field work in health education is to be done by Miss Anne Whitney.

Such a study, made by persons of long practical experience, is badly needed.

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The next annual meeting of the American Association of School Physicians will be held in the city of New York, October 2 to 8, 1937. As has been the custom, the meeting will be concurrent with and in co-operation with that of the American Public Health Association. This will be a particularly well attended and worthwhile meeting. For the first time, the National Organization for Public Health nursing will meet with the American Public Health Association. This evidence of the increasing co-operation among the various groups engaged in public health work is gratifying. Mark these dates on your calendar and make every effort to be at what bids fair to be the best attended scientific gathering of health workers ever held in America.

* * * * *

During the summer of 1937, at the DeLamar Institute of Public Health, College of Physicians and Surgeons, Columbia University, three courses of peculiar professional value to school physicians will be given; one each on, Medical Inspection, Mental Hygiene, and Physical Education. The

one on Medical Inspection will be given by Dr. Haven Emerson. To physicians responsible for school health administration, these should have great value.

The annual report of the Health Department of the Santa Barbara City Schools contains much interesting informatioon concerning set-up and procedures of the school health service in that city.

* * * * *

J. L. Bowman, M.D., recently elected to the Executive Committee, American Association of School Physicians. Born, June 28, 1874, in Rockingham County, Virginia. Graduated in Medicine, University of Virginia, 1897. Post graduate course in New York Polyclinic, 1902.

Organized the first system of school health work requiring medical and dental examination of all pupils entering school, which was continued until the beginning of the World War. Served two years in the World War, overseas with Base Hospital 82, at Toul, France, in capacities varying from Mess Officer to Chief of Medical Service. Discharged from the army, rank Captain, September, 1919, Major of Medical Reserve.

Organized the Bureau of Epidemiology, Alabama Department of Health, October, 1919, served as Epidemiologist to July 1, 1921. Health Officer of Montgomery County, including city of Montgomery, Alamaba, July 1, 1921, to date. Member of county and state (Alabama) medical societies, and of the American Public Health Association.

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REVIEWS

School Health Problems. By Laurence B. Chenoweth, M.D. and Theodore K. Selkirk, M.D. F. S. Crofts and Co., New York. 1937. 387 pages. Price $3.00.

Written especially to "acquaint students of education, teachers in service, and others interested, with the broad general nature of health problems in schools," this book is a welcome addition to those which have appeared since the White House Conference on Child Health and Protection. It condenses much valuable information of recent origin. Moreover, it represents the only comprehensive discussion of its kind since the publication in 1927 of Wood and Rowell's "Health Supervision and Medical Inspection of Schools."

For the non-medically trained health educator this book supplies a real need. It is truly a scientific text; yet it lacks much of the ultra-scientific nomenclature which so often accompanies discussions of this kind. For this the authors are to be commended. Their text is extremely readable, and if we judge correctly, it will find ready acceptance by edu-

cators seeking concise descriptions of hygienic problems. Long experience in school health work has enabled the writers to produce an extremely practical text.

The general arrangement of subject matter lends itself well to classroom use. Each of the seventeen chapters is outlined in such a manner as to give the student a logical description of the subject matter under discussion. In addition, each chapter has appended an extensive list of references for further study. The print and paper are entirely satisfactory from a hygienic standpoint, and the choice of illustrations and graphs is excellent.

An outline of school health administrative practices by Dr. Richard Bolt summarizes the latest contributions in this field.

The book is highly recommended.

EARL E. KLEINSCHMIDT.

* * * * *

"Health for Body and Mind." Walter F. Cobb. D. Appleton-Century Co., Inc., New York. 1936. Pages 534. Price $1.60.

This text, containing a great amount of worthwhile information, places more emphasis on the fundamentals of body structure and physiology than is usual in books of this type. It is interesting to note the increasing emphasis being placed, in efforts to teach hygiene, on the basic scientific facts involved. To many, this seems a desirable change. The product certainly is less wishy-washy, than the prevailing type of text of a decade ago.

Each chapter is ended with stimulating questions and problems and suggested activities.

A chapter by chapter bibliography designed for both pupils and teachers would materially add to the usefulness of the text.

CHARLES H. KEENE.

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"Pediatric Nursing." John Zahorsky, M.D. and Beryl E. Hamilton, R.N. C. V. Mosby Co., St. Louis, 1936. Pages 560. Price $3.00.

This text is designed for the instruction of those nurses especially interested in the nursing care of infants and children, and is intended for use, largely, in hospital training schools for nurses.

Part One deals with the science of the care of young children. Its first chapter deals with that fundamental—so often neglected in nurse and teacher training—Growth and Development. Then follow chapters devoted to discussion of the welfare of normal children, and then the text discusses, in some two hundred pages, the various abnormalities and dis-

eases to which young children are peculiarly susceptible, and nursing as related to these diseases.

Each chapter in Part One is followed by a long list of excellent questions on the content of the chapter.

Part Two discusses the practical phases of pediatric nursing in a clear definite valuable way, first as to materials, and home and hospital provisions for the adequate care of young children, following this with a number of chapters on numerious techniques, an intimate knowledge of which is essential to the safe and corrective care of infants and children.

This publication is a highly informative text, and contains a mass of material necessary for successful nursing in the field of pediatrics. The study of it, and the practice of the techniques described, will enable the nurse better to understand and to use the details essential to an improved service to the physician and a better care of the patient.

CHARLES H. KEENE.

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